United States Department of the Interior

NATIONAL PARK SERVICE
Northeast Region
United States Custom House
200 Chestnut Street
Philadelphia, PA 19106

IN REPLY REFER TO:

N3615(NER/RS&S-NRP)

AUG 7 2003

Dear Interested Party:

We are pleased to provide you with a copy of the technical report entitled, "Assessment of Air Quality and Related Values in Shenandoah National Park." The report documents current air quality conditions at Shenandoah National Park in Virginia. It is the culmination of several years of data compilation, analysis, modeling and evaluation. The report can better inform regulatory decision-making by providing an objective technical assessment by scientific experts on the quality of air and related resource conditions in this Federal Class I area.

This report is a technical assessment that evaluates the past, current and potential future status of air quality and air pollution effects on the sensitive resources in Shenandoah National Park. It focuses on the park's key known air quality related values, including visibility, streamwater chemistry, fish, soils and vegetation, and the human-made air pollutants that most affect them. The assessment summarizes the park's current and historical air quality and resource conditions, synthesizes knowledge on the visibility and ecological effects of atmospheric pollutants and documents park-specific critical load ranges for sulfur deposition effects on surface waters and ground-level ozone effects on forests. The report attempts to predict future air quality and resource conditions assuming implementation of the 1990 Clean Air Act as well as two substantially more stringent alternative emission control scenarios developed by the authors. The report also provides an overview of pertinent national and park-specific laws and policies.

Findings highlighted in the report include:

- Shenandoah has one of the highest monitored concentrations of airborne sulfate particles, acidic deposition and ground-level ozone of all U.S. national parks.
- Current annual average visual range is about 20% of the park's estimated natural range.
- Current annual average haziness is about three times greater than the park's estimated natural haziness.
- The park's most acid-sensitive streams have generally lost one or two species, and some streams may have lost up to four species of fish in response to acidic deposition.